



CHAPTER 8

SAFETY CONSIDERATIONS FOR TRAIL WORKERS





National scenic trails have had impressive safety records over the years. With so many volunteers contributing thousands of hours each year, under arduous conditions, this is remarkable. Most volunteers and crew leaders understand the importance of being safe and are mindful about protecting themselves and others. Still, it is easy to become lax and forget basic safety rules. It is impossible to cover all aspects of safety in this handbook—there are entire books written on the subject. Crew leaders and others are encouraged to investigate more detailed sources of information such as agency-specific safety handbooks, manufacturer's instructions accompanying individual tools, and on-the-job training from more experienced workers. The purpose of this chapter is to remind trail workers of some basic common-sense rules and offer brief insights into planning for a continued safe work record.

Above all else, consideration should be given to maintaining the proper attitude about safety. Crew leaders should not make the assumption that everyone thinks the way they do. Considerable time should be spent going over safety rules before each work outing.

SAFETY RULES

1. Tools should be carried in the safest way. The tool should be gripped by the handle about 6 inches behind the head (or at the balance point) and carried to the side, on the down-slope side of the body rather than over the shoulder or as a walking stick. When tools are carried correctly, injuries due to accidentally falling on them are reduced. Tools with sharp blades should be carried with the blade facing the ground and equipped with a sheath to prevent accidental cuts and to retain their sharp edge. The sheath should remain on the tool while it is carried to the worksite and removed only when used. Bulky or clumsy items should be held with two hands or carried by two people.
2. Plenty of room should be allowed between volunteers for walking and working—generally 10 feet between each crew member.
3. Crew members should always be aware of what others are doing and take full responsibility for their own safety and the safety of others.
4. *The right tool should be used for the job.*
5. The "Scan-Shout-Swing" order of executing a job should be implemented. Crew members should look around to make sure no one is in harm's way and that there is plenty of room to swing safely. If necessary, first clear brush or limbs to avoid injury from a deflected tool. Second, intentions should be communicated and third, when all is clear, crew members may proceed.
6. Trail hazards should be removed as they are encountered, or their presence communicated to other workers down the line—either verbally or with a temporary sign (for instance, a temporary sign could warn others of a nearby yellow-jacket nest or a poorly supported leaning tree). Hazards should be removed as soon as practical to prevent others from being harmed.
7. Dehydration, heat stroke, lack of energy, and hypothermia are life-threatening concerns. First aid supplies should be kept on hand and every crew member should know what is available and where it is kept. If working in remote locations, someone should know the crew's location and expected time of return.



8. *Machismo* should be saved for the football field—it's easier to be carried off a football field than it is to be carried out of the woods.

9. Crew members should be aware of their physical condition and limitations—weariness can lead to accidents.

LEADING A WORK OUTING

Safety is the number one priority in all volunteer trail operations. Crew leaders are responsible for briefing crew members to maintain a safe working environment and instilling in them a sense of safety responsibility. Every work leader should learn and teach his/her crew safe work habits and see that these practices are implemented. Every tool is a potential source of injury and everyone cannot be watched at all times. Therefore, ground rules must be established at the beginning and taught by example.

The correct tools for the job should be selected and inspected. Blades should be sharp, handles smooth, and heads securely fastened. Tools should be properly cared for and used correctly. Crew leaders should demonstrate proper carrying and handling techniques before leaving the parking lot. See some suggested safety guidelines in *Chapter 10 - Selecting the Right Tool*.

Careful planning will prevent problems during the outing. A checklist of supplies and safety-briefing points is a must.

Sample Checklist

- ▶ Tools (list)
- ▶ First Aid kit
- ▶ Insect repellent
- ▶ High energy food (list)
- ▶ Water (adequate amount for conditions and crew members)
- ▶ Individual water containers
- ▶ Extra rain gear or plastic garbage bags
- ▶ Extra gloves
- ▶ Hard hats
- ▶ Eye & ear protection
- ▶ Other personal protective equipment (PPE)
- ▶ Compass
- ▶ Topo maps
- ▶ Project maps and plans
- ▶ Trail brochures



- ▶ Membership information
- ▶ Copies of "Safety Rules"

All potential participants should be told what they are expected to bring prior to the work day. Normally, participants are responsible for their own footwear, rain gear, and gloves. There will always be a few who need an item, so crew leaders should bring extra, if they are available.

Sometimes people will bring their own tools. This is fine as long as their tools are in good condition and appropriate for the project. Inexperienced workers, for instance, may bring hatchets for most jobs. They are ineffective for trail work when compared to loppers, bow saws and other trail tools. Crew leaders should be firm about leaving such tools behind, and should check all personal tools for soundness.

Just because a person has brought a tool from home does not mean that he/she knows how to use it correctly. Time should be taken to discuss proper use of all tools that are going to be used that day. If there are more tools than people, determine which ones are really necessary and which ones should be left behind. In most cases crew members should not carry more than one tool, except when walking in to major project sites. An exception to this is when small tools such as wire cutters for old barbed wire can be carried in a pocket or day-pack. In addition to teaching basic rules, a crew leader must also discuss other precautions (see poisonous pests below).

Crew leaders must be aware of any signs of fatigue, dehydration, or heat stroke among crew members. If someone seems to be having trouble, crew leaders do not need to draw undue attention to it, but should not ignore it either. Crew leaders should ensure that everyone is getting enough rest periods and water.

Finally, this should be a good experience for everyone—if the experience is positive, people will come back for the next work outing.

Special Considerations When Working with Youth

If supervising young people (especially teens who have a history of problems) crew leaders may need to reprioritize what they consider acceptable teen behavior. Crew leaders of youth are to be congratulated for having accepted such an important and challenging endeavor. The first prerequisite is to learn stress reduction and relaxation techniques. The following tips may be helpful:

1. Safety is priority from the very beginning. Crew leaders should let members know that mishandling of tools or abusive behavior toward others is not tolerated. State your reasons clearly—that you genuinely care about the crew members, the continuation of the program, and performance quality.
2. Crew leaders should establish a rapport by doing things with the teens that are fun (like jumping in a lake, or picking berries) and by being tolerant of other bothersome things the youth might do (like when they start making fun of the functional clothes crew leaders wear).
3. It is essential for crew leaders to have a sense of humor.
4. Crew leaders should be impeccable role models—but not afraid to admit their own mistakes.



5. Crew leaders should empower the youth with a can-do spirit—not a spirit of invincibility but one of humble self-reliance built upon cooperation.

Working with youth, especially those often referred to as “at-risk”, is not something that is for everyone. It is a job that can be both extremely rewarding and extremely frustrating. However, it is clear that teaching youth the importance of respecting themselves and each other, by practicing safety and strong work ethics, can make a real difference in their lives and in the life of the trail.

Using the Right Tool for the Job

Using the right tool for the job is directly related to safety. Using the incorrect tool for the job can lead to tool breakage, slips, and injuries. For instance:

- ▶ A shovel should not be used to chop away at a large root in the ground. Shovels were designed for digging and moving dirt—not chopping solid wood. A cutter mattock, pulaski, or axe should be used for chopping.
- ▶ A small hammer should not be used to drive spikes into railroad ties. Carpenter’s hammers (16-ounce claw hammers) are made for nails—not spikes. A 4-pound hammer or sledge should be used to drive spikes.
- ▶ A bow saw should not be used like a weed cutter. Bow saws are designed to cut through wood—not swung at weeds or brambles. A Suwanee Sling or other weed cutter should be used to cut weeds.

Using tools improperly is one of the chief causes of accidents. Chapter 10 should be studied to understand which tools can best do the work that awaits the crew.

First Aid

Ideally, all crew leaders should be certified in first aid by the American Red Cross. A first aid kit should be checked, complete, and large enough for the crew and the job at hand. Above all, it should be taken along on the job, and crew members advised of its location. Professional assistance may be hours away.

Poisonous Pests

Ticks - Wood ticks are a nuisance, but seldom pose medical problems. Skin and clothing should be checked and any ticks that are found should be removed.

Deer, or bear ticks, on the other hand, are potentially very dangerous. These ticks, which are much smaller than wood ticks, can carry the bacteria that causes Lyme Disease. Generally, only about one percent of all deer ticks are infected with the Lyme disease bacterium. However, in some areas more than half of them harbor the microbe. Most people with Lyme disease become infected during the summer, when immature ticks are most prevalent. Except in warm climates, few people are bitten by deer ticks during the winter months. Ticks should be removed from clothing and body as soon as they are observed. Research suggests that a tick must be attached for many hours to transmit the Lymes Disease bacterium, so prompt removal can prevent the disease. A thorough tick-check at the end of the day is advised. Immature deer ticks are only about the size of a poppy seed and may easily



be mistaken for a freckle or a speck of dirt. The risk of developing Lyme Disease from a tick bite is small—even in heavily infested areas. Most physicians prefer not to treat patients bitten by ticks with antibiotics unless they develop symptoms of Lyme Disease.

Tips for Personal Protection

- ▶ Wear light-colored clothing so ticks can be easily spotted.
- ▶ Wear long-sleeved shirts and closed shoes and socks.
- ▶ Tuck pant legs into socks and tuck shirt into pants.
- ▶ Apply insect repellent containing permethrin to pants, socks, and shoes, and compounds containing DEET on exposed skin. Do not overuse these products.
- ▶ Walk in the center of trails to avoid overgrown grass and brush.
- ▶ After being outdoors in tick infested areas, remove, wash, and dry clothing.
- ▶ Inspect your body thoroughly, and carefully remove any ticks.
- ▶ Inspect pets for ticks.
- ▶ Your local health department and park or agricultural extension services may have information on the seasonal and geographic distribution of ticks in your area.

How to Remove a Tick

- ▶ Tug gently but firmly with blunt tweezers near the “head” of the tick until it releases its hold on the skin.
- ▶ To lessen the chance of contact with the bacterium, try not to crush the tick’s body or handle the tick with bare fingers.
- ▶ Swab the bite area thoroughly with an antiseptic to prevent infection.

Mosquitos - Like wood ticks, mosquitoes are a nuisance but they are not particularly a safety hazard. Repellents should be used and/or long sleeved shirts and long pants worn. Herbal repellents can be used to cut down on the amount of DEET found in other repellents, if workers prefer.

Poison Ivy - Some people are extremely allergic to this easily identified plant. If seen, others should be alerted to its location so they can avoid it. A line of Technu® products, available in most drug stores, can help prevent contracting the poison.

Poisonous snakes - Poisonous snakes are rarely found along the Ice Age National Scenic Trail. The only poisonous snakes in Wisconsin are the Eastern Timber Rattlesnake whose habitat is found in the Baraboo Range in Sauk County, and the Massasagua which can be found along the Mississippi River bottoms. Even though encounters with poisonous snakes are rare, the following advice should be taken. Generally, snakes will move away from people if they hear them coming. The danger from poisonous snakes is greatest when the snake is surprised. In poisonous snake country, gloves should be worn when moving fallen logs or other debris, high-top leather boots should be worn, stepping



over large logs should be avoided and crew members should take care where they put their hands and feet.

If working in poisonous snake areas, a first aid class should be taken or first aid books made available to crew leaders and members so appropriate action can be taken in case someone is bitten. Generally, if a doctor can be reached within one to two hours, drastic measures of treatment such as incisions and tourniquets should be avoided. The person with the bite should be kept calm and escorted to the nearest doctor immediately. The injured should not run as this will cause the heart to more quickly pump the poison throughout the body. From most locations it is feasible to reach a doctor within the one to two-hour time frame. If a crew is working in a remote area, members should be prepared to administer first aid.

Spiders - Like snakes, poisonous spiders are infrequently encountered and are no more common in the woods than in a typical backyard. However, the brown recluse spider may be present in some areas, so an inspection of seldom-worn clothing is recommended prior to dressing. Sleeping bags should also be shaken out before use.

Deer Flies and Black Flies - Wearing hats and long sleeve clothing is the best preventive measure for these nuisances.

Yellow-Jackets and Hornets - These pests can cause painful stings and more serious allergic reactions. Persons who know they are allergic should carry a complete sting kit including antihistamine inhalants and other supplies. Crew leaders should check with crew members to see if anyone is allergic and to be sure they have their kit with them. The crew first aid kit should also be equipped with both "sting-kill" ampules and treatment for allergic reactions.

All members should be aware of insect nests and warn others of their presence. It is often the second and later crew members who get stung, as the first person who steps into or bumps a suspended nest has moved out of harms way by the time the insects attack. Yellow jackets typically nest in the ground while hornets build their nest in bushes and trees. If the pests cannot be killed and the nest destroyed, work elsewhere until a later date. If a nest is discovered the area should be marked with flagging or a temporary sign to alert others.

At certain times of the year and in certain kinds of weather, yellow jackets seem to be more aggressive. Generally this is in late summer and fall and during periods of dry weather. During these times, yellow jackets are attracted to food and drink. All members should be alert when eating or drinking pop to avoid getting a yellow jacket in the mouth. A sting in the tongue is particularly serious as the tongue can swell and quickly block the airway.

Simple Precautions

Crew members should work in clothing that covers most of the skin. Good quality work boots (best if they have a steel toe), a hard hat and gloves should be worn. With power equipment (like a chain saw) safety goggles, ear protection, and high quality chain saw chaps should be used.

Frequent water and rest stops are recommended. Crews should use common sense and not try to do more than is prudent.